Appl. No. 10/796,175 Amendment dated October 20, 2005 Reply to Office Action of July 26, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims:

1-2. (Canceled)

3. (Currently Amended) The A system according to claim 1, for copying data
between a plurality of storage systems, comprising:
a first storage system coupled to a plurality of computers, which comprises a
first logical volume storing data received from the plurality of computers; and
a second storage system coupled to said first storage system, which
comprises a second logical volume storing copy data of data stored in said first
logical volume;
wherein said plurality of computers include at least one computer issuing a
write request including a write time and at least one other computer issuing a write
request without a write time,
when a write time is included in a write request received from one of the
plurality of computers, said first storage system records the write time and sends
write data and the write time to said second storage system,
when a write time is not included in the write request, said first storage system
assigns a write time recorded by said first storage system to the write data and
sends the write data with the write time to said second storage system, and

said second storage system stores the write data received from said first storage system in said second logical volume in an order based on the write time received from said first storage system,

wherein said first storage system comprises a plurality of said first logical volumes,

said second storage system comprises a plurality of said second logical volumes,

a plurality of logical volume groups are provided, each said group including at least one said first logical volume and at least one said second logical volume, and further wherein said second storage system, in respect of each of said plurality of logical volume groups,

records a latest write time in the write times assigned to the write data to be stored in said second logical volumes in each of the logical volume groups sequentially,

selects the oldest write time from among the write times stored as the latest write time for each of the logical volume groups,

identifies the write data to which a write time has been assigned that is earlier than the selected oldest write time, and

stores the identified write data in its respective said second logical volume.

4. (Previously Presented) The system according to claim 3, wherein

said first storage system further assigns a sequential number to the write data for each of the plurality of logical volume groups and sends the write data with the assigned sequential number to said second storage system, and

said second storage system stores the write data in the second logical volumes in the order of the sequential numbers assigned to the write data for each of the logical volume groups.

5. (Previously Presented) The system according to claim 4, wherein said second storage system stores the write data in the sequential number order, so that there is no skipping of the sequential numbers that are assigned to the write data stored in the second logical volume, for each logical volume group.

6-10. (Canceled)

11. (Currently Amended) The system according to claim 7, for copying data between a plurality of storage systems, comprising:

a first storage system coupled to a plurality of computers, which comprises a first logical volume storing data received from said plurality of computers;

a second storage system comprising a second logical volume, which stores copy data of the data stored in said first logical volume; and

a third storage system comprising a third logical volume, which stores the copy data of the data stored in said first logical volume;

wherein said plurality of computers include at least one computer issuing a
write request including a write time and at least one other computer issuing a write
request without a write time,
said first storage system stores write data received from one of said plurality
of computers in said first logical volume,
when a write time is included in the write request received from the one of the
plurality of computers, said first storage system sends the write data and the write
time to said second storage system,
when a write time is not included in the write request, said first storage system
sends the write data to said second storage system,
when the write time and the write data are received from said first storage
system, said second storage system records the write time and sends the write data
with the write time to the third storage system,
when the write time is not received from said first storage system, said second
storage system assigns a write time, which is recorded by said second storage
system, to the write data received from said first storage system and sends the write
data with the write time to said third storage system; and
said third storage system stores the write data received from said second
storage system in said third logical volume in accordance with the write time
assigned to the write data,
wherein

——said second storage system comprises a plurality of said second logical volumes,

said third storage system comprises a plurality of said third logical volumes, a plurality of logical volume groups are provided, with each logical volume group including at least one of said second logical volume and one said third logical volume, and

further wherein said third storage system, in respect of each of said plurality of logical volume groups,

records a latest write time that is closest to the current time in the write times assigned to the write data to be stored in a third logical volume in the logical volume group sequentially for each of the logical volume groups,

selects the oldest write time from among the latest write times which have been recorded for each of the logical volume groups,

identifies write data having a write time earlier than the selected oldest write time, and

stores the identified write data in its respective said third logical volume.

12. (Previously Presented) The system according to claim 11, wherein said second storage system further assigns a sequential number to the write data for each of the logical volume groups and sends the write data with the sequential number to said third storage system, and

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said third storage system stores the write data in said third logical volumes in the order of the sequential numbers assigned to the write data.

13-20. (Canceled)